REMARKS

Claims 1 and 6 currently appear in this application. The Office Action of September 5, 2007, has been carefully studied. These claims define novel and unobvious subject matter under Sections 102 and 103 of 35 U.S.C., and therefore should be allowed. Applicant respectfully requests favorable reconsideration, entry of the present amendment, and formal allowance of the claims.

Restriction/Election

It is noted that the restriction requirement has been made final. Accordingly, the present amendment cancels claims 2-5.

Specification

The abstract of the disclosure is objected to because it is not sufficiently descriptive.

A new abstract of the disclosure is submitted herewith on a separate sheet.

The title of the invention is said to be not descriptive.

In accordance with the Examiner's helpful suggestion, the name of the organism from which the enzyme was isolated is included in the new title.

Claim Objections

Claim 1 is objected to because of the recitation of "polypeptide having an amino acid sequence in which at least one amino acid residue is deleted, added, inserted, or substituted in the amino acid sequence of SEQ ID NO:1."

Claim 1 has been amended to delete this language.

Rejections under 35 U.S.C. 112

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 1 is said to be indefinite in recitation of "54% homology" because the term is said to be unclear and confusing in the absence of a definition of the term "homology".

This rejection is respectfully traversed. Claim 1 has been amended to recite a polypeptide encoded by a nucleic acid hybridizing to the nucleotide sequence of SEQ ID NO:2 or a complementary strand thereof under conditions of incubation with a probe in 6 x SSC (1 x SSC: 9.15 M NaCl, 0.015 M sodium citrate, pH 7.0) containing 0.5% SDS, 0.1% bovine serum albumin (BSA), 0.1% polyvinylpyrrolidone, 0.1% Ficoll 400 and 0.01% denatured salmon sperm nucleic acid at 50°C for 12 to 20 hours followed by washing in 2 x SSC containing 0.5% SDS at 37°C while changing the SSC concentration down to 0.1 x and

the temperature up to 50°C until a signal from an immobilized nucleic acid can be distinguished from background."

Support for this amendment can be found in the specification as filed at page 20, line 14 to page 23, line 10. It is respectfully submitted that one skilled in the art can readily obtain such a polypeptide having a thermostable ribonuclease H activity according to the description of the present specification and common knowledge in the art.

Claims 1 and 6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims are said to contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

This rejection is respectfully traversed. Paragraphs (b) and (c) have been deleted from claim 1. Claim 6 has been amended to change -obtainable-to "obtained."

Claim 6 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. Claim 6 is said to contain a novel vector, and the enablement requirement may be satisfied by a deposit of the vector.

This rejection is respectfully traversed. The original deposit of FERM BP-8433 was made in accordance with the Budapest Treaty, and the organism will be available to the public under the conditions specified in 37 CFR 1.808.

Claims 1 and 6 are rejected under 35 U.S.C. 112, first paragraph, because the specification is said to be enabling only for the polypeptide of SEQ ID NO:1.

This rejection is respectfully traversed. Claims 1 and 6 have been amended to recite an isolated polypeptide having the amino acid sequence of SEQ ID NO:1 or a polypeptide encoded by a nucleic acid hybridizing to the nucleotide sequence of SEQ ID NO:2, or by culturing a transformant into which a plasmid pApr108 harbored by *Escherichia coli* HMS174/pApr108 is transferred.

Rejections under 35 U.S.C. 101

Claims 1 and 6 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

This rejection is respectfully traversed. Claims 1 and 6 have been amended in accordance with the Examiner's helpful suggestion so that the polypeptide is now recited as "isolated."

Art Rejections

Claims 1 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Itaya et al., *Nucleic Acids Research* **19(16)**:4443-4449, 1991.

This rejection is respectfully traversed. Claims 1 and 6 have been amended to recite a very specific structure for the claimed thermostable ribonuclease H. There is nothing in Itaya that teaches or suggests the particular ribonuclease H claimed herein.

Claims 1 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Klenk et al., PIR accession number E69327, 1997.

This rejection is respectfully traversed. Claims 1 and 6 have been amended to exclude any thermostable ribonuclease H other than the one specifically claimed, and it is respectfully submitted that Klenk neither teaches nor suggests the particular thermostable ribonuclease H claimed herein.

In view of the above, it is respectfully submitted that the claims are now in condition for allowance, and favorable action thereon is earnestly solicited.

Respectfully submitted,

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